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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/481,988	01/11/00	BRUINSMA	P 1941-70

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EXAMINER MARCANTONI, P

ART UNIT 1755	PAPER NUMBER 14
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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/481,988	Applicant(s) BRUINSMA ET AL.	
	Examiner Paul Marcantoni	Art Unit 1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27, 40, 41, 58-60, 69-71, and 78-115 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-27 is/are allowed.
- 6) ☒ Claim(s) 40, 41, 58-60, 69-71, and 78-115 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- | | |
|---|--|
| 15) <input type="checkbox"/> Notice of References Cited (PTO-892) | 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 17) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 20) <input type="checkbox"/> Other: _____ |

Applicant's arguments and newly amended and new claims filed 12/29 have been fully considered but they are not persuasive. These arguments were part of an after final amendment not considered in the parent but now considered as a result of the applicants' filing of an RCE.

Status of Claims:

Claims 1-27 are allowed.

Claims 40, 58-60, 69-71, and 78-115 are active and pending claims.

Examination of Claims:

Claims 40, 58-60, 69-71, and 78-115 are rejected under the first paragraph of 35 USC 112 and 35 USC 132 as the specification as originally filed does not provide support for the invention as is now claimed. In other words, these claims have been held to constitute new matter.

Claims 58 and 85 are rejected under the second paragraph of 35 USC 112 for failing to particularly point out and distinctly claim the applicants' invention.

The terms "*silica based metal oxide*" are *indefinite*. Amendment to silica is advised.

Analysis of Each Claim:

Claim 40 is new matter because applicants do not have support for the broad category of cationic surfactant but are limited to *ammonium cationic surfactants* for their invention (see col.7 of Bruinsma patent). Therefore, this claim is new matter.

Also in claim 40, applicants do not have support for less than "approximately" 5 minutes but only have support for "less than 5 minutes". (See col.7, lines 8-10) Deletion of approximately is advised.

Claim 58 is new matter since applicants do not have support for all or any surfactants but are limited to ammonium cationic surfactants (col.7, Bruinsma Patent).

The term silica-based metal oxide should be amended to silica or silicon dioxide since the term "based" is indefinite.

Claim 59 is supported by the original disclosure.

Claim 60 contains new matter since the alkoxide must be a silica precursor alkoxide or tetrachlorosilane (see claim 19, for example of Bruinsma Patent).

Claim 69 is new matter since *cationic surfactant* is not supported by the original disclosure. Only ammonium cationic surfactant is supported by the original disclosure and no others.

Claim 70 contains new matter since "approximately" is not supported by the original disclosure. Deletion of "approximately" is advised as there is support for only 450 degrees C in column 18, line 63 of Bruinsma Patent.

Claim 71 would appear supported by the original disclosure in examples 1 and 10.

Claim 78 contains new matter since "alkoxide precursor" would appear broader than the originally disclosed invention. Applicants only have support for alkoxide silica precursor or tetrachlorosilane as stated in claim 19 of Bruinsma patent.

Claim 79 and 84 would appear to contain new matter as well. The terms "soluble source of silicon" and "silicon aluminum oxide" would not appear supported by the original disclosure. Further, applicants do not have support for all "surfactants" in claim 79 and 84 but are limited for their original disclosure to only ammonium cationic surfactants.

Claims 80-83 would appear supported by the original disclosure.

Claim 85 contains new matter since applicants are limited to an "acid" catalyst. Insertion of —acid—into claim 85 is advised and respectfully requested. The terms "less than approximately 5 minutes" is not supported by the original disclosure. Deletion of "approximately" would resolve this problem as the original disclosure nowhere mentions the term "about" or "approximately" for applicants to derive support for this claim.

The term "silicate network" would appear to be new matter in claim 85. This would be withdrawn if applicants show where from the original disclosure they derive support for this term.

Claims 86-88 would appear to be supported by the original disclosure.

Claim 89 is indefinite since the terms "cationic surfactant" is not supported by the original disclosure and thus new matter. Applicants only have support for ammonium cationic surfactants.

Also, in claim 89, "polyethylene oxide" is new matter and would not appear to be part of the original disclosure.

Claim 90 contains new matter with the terms "alkoxide precursor" since applicants would appear to only have support for silica alkoxide precursor or tetrachlorosilane-see again claim 19, for example of Bruinsma patent.

Claim 91 contains new matter with the terms "surfactant" and "catalyst". Applicants' invention is strictly limited to "acid" catalysts and the surfactant must be specifically an ammonium cationic surfactant. Applicants clearly do not have support for any or all surfactants from their original disclosure.

Claim 92 contains new matter with the term "approximately". The applicants have support for less than 1 minute in column 7, line 10 but do not have support for "approximately" one minute. Deletion of "approximately" is advised.

Claim 93's limitations would not appear to have any support from applicants' original disclosure and thus constitute new matter. Where is the support for "approximately 10 seconds?"

Claims 94 and 95 contains new matter with the terms "alcohol which is a by product of hydrolysis". It is not seen where applicants derive support for an alcohol being the byproduct of hydrolysis.

Claim 96 contains new matter with Si—Fe oxide or Si-Al oxide. Where from the specification (original) is their support for these terms?

Claim 97 contains new matter with respect to the term "polyethylene oxide". Applicants do have support for CTAC from their examples in the original disclosure.

Claims 98 and 99 are once again new matter since applicants do not have support for "all" cationic surfactants but are limited to "ammonium" cationic surfactants as set forth in their original disclosure.

Claims 100-101 would appear to be supported by applicants' original disclosure.

Claim 102 would appear to contain new matter due to the terms "silicon aluminum oxide". It is not seen where applicants derive support for these terms.

Claim 103 is new matter since applicants do not provide an exact time of aging which is called for and required by their original disclosure. Their original disclosure states that aging must occur for 1 hour (col.18, line 55).

Likewise, claim 104 is new matter since there is no support for the term "approximately one hour" but only support for "one hour" of aging.

Claim 105 contains new matter with the term "approximately 450 degrees C" ^{since} ~~since~~ applicants have no support for the term "approximately". Deletion of "approximately" would resolve this problem.

Claim 106 contains new matter since applicants have no support for the claimed range for index of refraction.

Claim 107 contains new matter since applicants would not appear to have support for "squeegeeing" in their original disclosure.

Claim 108 is indefinite since applicants do not have support for this XRD range. No literal support is given for the range of 2 to 5.5 degrees nor is it proper to be able to ascribe this range with such exactitude from a figure from the disclosure.

Claims 109 through 115 are all new matter since applicants do not have support for their claimed range for index of refraction.

Response:

The applicants have argued that they need not provide literal support for many of their claimed ranges including x ray diffraction and index of refraction. It is the examiner's position that it is improper for applicants to extrapolate to an accuracy of 2 significant figures off their graphs. At best, applicants' ranges are a guestimate or estimation and it is improper to provide such specific and exact values especially when considered in light of the Brinker et al. patent. Regardless of whether or not literal support is proper or improper, it is improper for the applicants to provide such exact and specific ranges from a graph (that does not provide such exactness) and then apply it to a specific range.

The examiner has carefully considered applicants remarks that his rejections of new matter were improper. The examiner disagrees and maintains that applicants do not have support for the limitations they are now adding to their claims for the reasons such as those provided above and the parent application final rejection. The examiner disagrees that he has used any improper new matter standard. Applicants simply have no support for the features they are now attempting to claim from their original disclosure. Further, the doctrine of equivalence such as those presented by the declarations of various experts cannot be later used to substitute into a potentially incomplete specification. Equivalent metal oxides, for example, other than silica, can not merely be introduced at a later time due to any possible or accidental omission on the

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part of applicants. In addition, the ^{examiner} applicants never ignored the declaration, but carefully considered them. Yet, applicants cannot substitute parts of a declaration such as other metal oxides into a disclosure that only contains silica as the metal oxide used for the invention and claimed for the invention. The statutes are strict regarding standards for new matter and the examiner has applied them properly

The examiner also disagrees with applicants' indication that new matter was improperly applied for applicants' claims. Applicants limited their own specification to specifically ammonium cationic surfactants. Had they stated in their specification that any surfactant can be utilized there would have been no disagreement on the part of the examiner. The specification does ^{not} state that any surfactant other than ammonium cationic surfactants and possibly chloride and bromide surfactants may be used for their invention (see col.7, lines 40-50).

Nevertheless, in all fairness to applicants, only one line may support applicants position. Applicants are referred to column 6, lines 57 through 60 wherein it is stated that a silica precursor is mixed with a surfactant in an aqueous solution for templating the silica precursor together with an acid catalyst for hydrolysis of the silica precursor. This could be supportive of applicants position yet column 7, lines 40-50 truly would appear to *limit* the specific surfactants that can be used for the invention. Ammonium cationic surfactants, chloride, and bromide surfactants are mentioned as possible surfactants yet the specification does not give one of ordinary skill in the art the teaching that any surfactant may be used to successfully carry out the invention.

The applicants have repeated arguments with respect to surrendered subject matter or recapture. Again, applicants are referred to prior arguments made by the examiner in the parent application for further clarification of his position. The re-admission of the product claims which were previously restricted and now added to the re-issue application is improper and the rules remain clear regarding this situation. No further comment is deemed necessary as this has repeatedly been addressed in the parent application.

Any inquiry may be made to Paul Marcantoni at 703-308-1106 or Mark Bell at 703-308-3823.



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